Asia-Pacific Journal of Public Health 1988 - Vol 2 No. 4

Community Based Health Care in the Philippine Highlands: The Hanunuo Mangyans of Mindoro

TS Osteria,* DSc
JY Okamura,*† PhD
Research Center
De La Salle University
Manila, Philippines
*Institute of Southeast Asian Studies, Heng Mui Keng Terrace, Pasir Panjang, Singapore 0511
†Institute of Culture and Communication, East-West Center, Honolulu, Hawaii 96848, USA.

Abstract

The feasibility and effectiveness of community participation in the planning and delivery of health care services among the Hanunuo Mangyans in the Philippine highlands is described. The Hanunuo are swidden cultivators and one of seven indigenous ethnic minorities in the forested interior of Mindoro island. Previous Mangyan studies have shown that they have poor health, are generally malnourished and continually susceptible to communicable diseases. The need to develop viable strategies to counter their health problems is pressing since Mindoro suffers from insufficient health care facilities and personnel, and health services are rarely available to Mangyans. Baseline surveys on the health and nutritional status of the Hanunuo population in the project site indicated that the following illnesses are most prevalent: upper respiratory tract infection, skin diseases, parasitism, anaemia and malaria. The more significant health problems of the Hanunuo include poor environmental sanitation, lack of medical personnel and drugs, inadequate knowledge of curative and preventive care, lack of adequate prenatal care, poor nutritional status and lack of health education. Also described are the participation of the community in project planning and decision making, the training workshops and resource manual for the community volunteers, the coverage areas and assigned tasks of the health workers, and the organisation of village health committees.

Keywords: Community participation, Ethnic minority, Health care training, Philippines, Primary health care.

This paper describes the development of a community based health care system among the Hanunuo Mangyans in the highlands of Mindoro island in the Philippines. The research project seeks to determine the feasibility and effectiveness of community participation in the planning of health care services through the development of a community health care programme.

The Hanunuo are swidden cultivators (unique tribal way of agricultural cultivation on mountain slopes) and are one of seven indigenous ethnic minorities in the forested interior of Mindoro, collectively referred to as Mangyans. Mangyans have poor health, are generally malnourished and are continually faced with communicable diseases and threats of malaria infection.[1] The need to develop viable strategies to counter their health problems is pressing since Mindoro suffers from insufficient health care facilities and personnel. The situation is especially bleak for Mangyans, particularly those living in the hinterlands.[2]

The need for alternative health care delivery strategies is urgent as the Philippine economy precludes the resource expansion necessary to provide basic health services to the still underserved ethnic minorities. As a consequence, local communities are determining ways to expand health services by building on their own resource capabilities.[3] Perhaps the most promising of such community organised approaches is the one where the potential recipients of services are also the providers. The training of community members as health care workers should increase their capability for providing their own health care and thereby decrease their dependence on services provided by the government and other agencies, if these are available at all.

Health and Nutritional Status of the Population

Baseline information on the health and nutritional status of the Hanunuo population of almost 1,000 in the two project villages was obtained from three sources, i.e., a household health survey, a clinical assessment and interviews with health service providers. The health survey indicated high rates of fertility and mortality in the population. The average number of pregnancies is 6.7, while the average number of live births is 4.6. Foetal death occurs in 13.8% of all pregnancies, and childhood mortality (deaths in the first five years of life) represents a high 46.2% of all live births. The major causes of childhood death are preventable: 53.2% from respiratory distress, 15.6% from gastrointestinal disorders, 10% from nutrition related causes (vitamin B deficiency, anaemia) and 9.0% from malaria.

A clinical evaluation of 134 households (83% of the 161 households surveyed) was carried out with regard to morbidity. Men experienced the following health problems: upper respiratory tract infection (70.4%), skin diseases (59.3%), parasitism (ascaris, trichuris) (43.2%), anaemia (40.7%), other nutritional disorders (38.3%) and malaria (17.3%). For females, the following health problems were evident: nutritional disorders (64.5%), anaemia (50.7%), parasitism (39.6%), goitre (35.0%), skin diseases (31.3%), upper respiratory tract infection (29.0%) and malaria (9.7%). Among preschoolers, 89.3% were reported as having been sick the previous year, 50.7% had respiratory problems, 32.8% had gastro-intestinal disorders and 13.4% had malaria.

Using Waterlow's classification, 34.0% of the 162 preschoolers examined were found to have a normal nutritional status, while 31.5% were stunted, 25.3% percent were wasted, and 9.2% were both stunted and wasted. However, using the Philippine Food and Nutrition Research Institute standards, 53.7% of the preschoolers were malnourished at the second and third levels, 38.9% were malnourished at the primary level, while only 7.4% of the children could be considered normal.

The absence of medical personnel and the unhygienic practices of the Hanunuo contribute to their high mortality and morbidity rates. Despite their growing acceptance of modern medicine, health facilities are non-existent in their communities. The more significant health problems that confront the Hanunuo are the following:

- Environmental sanitation: the lack of sanitary toilets, the absence of a potable water supply and improper storage of water result in the widespread incidence of diarrhoea, skin diseases and tuberculosis.
- Lack of medical personnel and drugs.
- Inadequate knowledge of curative and preventive health care that emanates from ignorance of the aetiology of illness and from its subsequent improper management.
- Lack of adequate prenatal care and sanitary delivery practices.
- Poor nutritional status due to lack of food supply and improper dietary practices.
- Lack of health education.

Dissemination of Survey Results

The more significant results from the household health survey and the clinical assessment were presented to the villagers in research dissemination meetings held in each project village. The meetings began with a project staff member explaining the rationale for the health survey and clinical evaluation and for the dissemination of the research results to the community. The more salient findings were then discussed with the villagers. These included the socio-economic and demographic profile of the villages, their most prevalent illnesses and diseases, the primary causes of death among villagers, their fertility and mortality patterns, their perception and management of specific illnesses, and their major health problems. It was found that almost all the survey respondents (92%) had indicated an interest in participating in a community based health care programme and that they had expressed a willingness to devote "any amount of time" necessary for such a programme to succeed (81%). The kinds of health care activities they had indicated an interest in joining were family planning, immunisation, health education and environmental sanitation.

This information was presented to the Hanunuo in a lecture, which was supplemented by large, coloured

posters illustrating the topics discussed. Sketches of Hanunuo figures were used to depict the signs and symptoms of their common illnesses. The villagers appeared interested in the research results.

Community Decision to Participate

Following the research dissemination, the proposed community based health care programme was discussed with the villagers, and they expressed their ideas and offered their suggestions for its planning and implementation. In one of the villages, after the project staff members had conducted a general discussion of the proposed health programme, the villagers were given the opportunity to discuss the programme among themselves. One of the issues raised by the leaders was the necessity for maintaining cleanliness in the village, particularly in the core settlement area. They felt that pigs and other farm animals should not be allowed to roam freely through the village. The officials also suggested building toilets. Some community members said that would be difficult and would require much time and effort. Nonetheless, the community consensus was that they should construct pit latrines, which is why one of the community health volunteers' practical assignments was to build a toilet facility near their homes.

The major decisions concerning the proposed community health care programme made by the members of both project villages during the dissemination meetings were that they wanted to participate in the health programme and that they were willing to assume the duties involved in such participation. They also agreed to construct health clinics in the village centres for which they would provide the necessary materials and labour through arawatan or collective effort. They also decided that the workshops for the health workers would be held in their villages in December since by then the rice harvest would be completed, and thus they would have the necessary time to devote to the training. Prospective health care trainees were then presented to the villagers who gave their approval for them to participate in the training.

The Health Workers' Manual

The instruction manual[4] used to train the community health providers was adopted from that developed by the Ministry of Health of the Philippines for its nationwide Primary Health Care Programme, which is being implemented primarily in lowland urban and rural communities. The revision of the Ministry's handbook took into consideration the health and nutritional problems, indigenous health beliefs and practices, local resource availability, and overall cultural context of the Hanunuo. This was information obtained through the household health survey, clinical assessment, and observations and interviews in the community. For example, a section on the preparation and use of medicinal plants was added to the handbook since it was observed that the villagers used certain local plants in their treatment of various illnesses. The revision of the handbook also took into consideration the lack of formal education of most of the Hanunuo. Certain sections of the original manual that were thought to be too difficult for them to comprehend either were rephrased or omitted altogether. Furthermore, in order to make the manual culturally relevant and appropriate and also to enhance its understanding, numerous illustrations depicting Hanunuo figures, cultural objects, common plants and fruits, and other familiar features of Hanunuo village life were added to the text.

"...numerous illustrations depicting Hanunuo figures were added to the text."

After the manual had been prepared, it was translated from English into Filipino, the national language of the Philippines. The Filipino version was then translated into Hanunuo using their syllabic script.

Training Workshops

Training workshops for the community health workers were conducted for one-week periods in the two project villages using the manual as a resource guide. The workshops sought to provide the trainees with a minimum level of skills and knowledge so that they would be able to assume immediately their duties as health care providers. However, it was recognised that additional and review training would have to be provided during the ensuing year. The workshops were held in December when villagers were least occupied with agricultural work following the rice harvest in October and November and before the preparation of their fields for planting early the following year.

The instruction method used included lectures, demonstrations and "hands-on" training. The trainees were shown how to collect sputum samples for tuberculosis detection tests and blood smears for malaria tests, procedures which they then performed on each other. They also prepared various kinds of herbal remedies for the treatment of diarrhoea, cough and malnutrition. The training also included practical assignments. Their first

task was to compile a list of household members in their assigned catchment areas. A longer term practical assignment was for each trainee within the next two months to construct a pit latrine for the use of their families and to encourage the families within their coverage areas also to build such toilet facilities.

The Community Health Workers

Thirty-seven villagers were trained to serve the community as health providers. The majority of them were females (81%). Only seven were males. Their average age was 26.1 years ranging from 15 to 52 years. Almost half (18) of the health workers had no formal education, while their average number of years of education completed was 1.9 with the highest grade attained being the sixth grade (about 12 years old). All the volunteers were farmers with the exception of one person who was a student.

The primary criterion in recruiting the health care providers was interest in participating in the health care programme since they would be serving the community as volunteers. All villagers who indicated such an interest were accepted for the training workshops. However, a prerequisite for being accepted was the ability to read, write and understand Filipino or literacy in the Hanunuo language. Knowledge of Filpino was necessary because the workshops were conducted in that language since the trainers were unfamiliar with Hanunuo, and the training manual and other written materials used during the training were in Filipino. For those trainees who could not read or write Filipino, a Hanunuo translation of the training handbook was provided. The volunteers for the training workshops were presented to their respective villages for their approval. Each volunteer had to be introduced to and approved by the community thus making the ultimate selection of the trainees the community's decision.

Coverage Areas

The average number of households served by a health worker was 4.3, including his or her own family. The number of households in a coverage area ranged from three to as many as seven, although an attempt was made to distribute the families as equally as possible. The households assigned to a health provider were determined primarily according to location of residence. Those volunteers living in the centre of the villages were generally assigned to families also living in the centre, while those in the areas surrounding the village proper were responsible for households in those areas. The primary reason for this division of services was to minimise the distance between a volunteer's residence and his or her coverage area in order to facilitate the regular provision of health care since the Hanunuo were widely dispersed among numerous hamlets throughout the project site. For example, one of the project villages had 93 households. Twenty-three households were in the village centre and the remainder in 23 surrounding hamlets ranging in size from one to seven households. In both project villages, the closest hamlets to the village centre were thirty minutes walk away, but the more distant hamlets could be over two hours' walk away. This dispersal of villagers was compounded by the hilly terrain that made hiking from one hamlet to another quite difficult, especially during the five-month rainy season from June to October when the trails were muddy and slippery.

Health Care Tasks

The health workers were given general guidelines rather than specific, regular assignments. In general, their primary tasks were curative in nature. They had been instructed to visit the families in their catchment area on a regular basis every week, to inquire if anyone was ill and, if so, to provide the appropriate treatment. They were also told to visit households in their coverage area if cases of illness were reported to them by other villagers and to treat persons who came to them for help. They were instructed first to use herbal remedies rather than tablets or other medication since these may not always be readily available. In the event of an illness for which they did not know the treatment, in serious cases or when the patient's condition did not improve after two to three days of treatment, the workers were told to refer or accompany such patients to the project nurse who could then attend to them. The nurse, who lived in the project villages, was directly responsible for the supervision and training of the volunteers.

The health workers were also assigned some preventive care tasks. They were instructed to encourage families to maintain personal cleanliness and to keep their homes and their immediate surroundings clean, particularly with regard to the disposal of human and animal waste. They were also responsible for informing and mobilising villagers to participate in various project activities such as the immunisation of young children, emergency feeding programmes for malnourished children and nutrition education classes.

Their first practical preventive care assignment was to build pit latrines for their own family's use and to encourage other households in their area to do the same. They also had to visit the families in their catchment area and to compile a list of anyone who might have

tuberculosis as evident from vomiting or spitting blood or from persistent coughing for one to three months.

Village Health Committees

Village health committees, composed of health workers, their husbands, community officials and other villagers, were organised by the project staff in both of the project villages during the first month of project implementation. The committees had ten members, most of whom were males. Each of the committees is chaired by the sitio *kapitan* or village headman who was appointed as chairman by the project staff. Given the participatory orientation of the programme, the objective in organising those committees was to encourage the entire community, and not only the health workers, to participate in project planning and decision making. The committees were intended to serve as the means by which the community could provide input into the planning and implementation of the project.

The project is being evaluated after 15 months of implementation and monitoring. Subsequent papers and monographs will present analyses of the feasibility and effectiveness of the community based health care programme.[5]

Acknowledgement

Grateful thanks is given to the International Development Research Centre who supported the research project on which this paper was based.

References

1. Ellevera-Lamberte E: *Mangyans in Perspective: An Integrative Study of Contemporary Mangyan Research (1960-1981).* Manila: Research Center, De La Salle University, 1983.
2. Osteria TS: Community mobilization for the provision of basic health services in the uplands: assessment of prospects. In: Osteria TS, Okamura JY, eds. *Participatory Approaches to Development: Experiences in the Philippines.* Manila: Research Center, De La Salle University, 1986.
3. Robillard AB: Community-based primary health care: reality or mystification? In: Osteria TS, Okamura JY, eds. *Participatory Approaches to Development: Experiences in the Philippines.* Manila: Research Center, De La Salle University, 1986.
4. *Manual for the Training of the Hanunuo Mangyan Community Health Worker.* Manila: Research Center, De La Salle University, 1986.
5. *Community Mobilization for the Provision of Basic Health Services in a Tribal Community in the Philippines.* Final project report submitted to the International Development Research Centre. Manila: Research Center, De La Salle University, 1987.

Volume 2 Number 4
1988

ASIA-PACIFIC JOURNAL OF PUBLIC HEALTH

The official organ of the Asia-Pacific Academic Consortium for Public Health

Contents

Editorial

Ageing as an Increasing Public Health Problem in the Asia-Pacific Region — 217
WO Phoon

Special Articles

Address to the Asia-Pacific Academic Consortium for Public Health — 218
RE Windom

AIDS in the Pacific — 221
JT Villagomez

Some Reflections on the Global and Asia-Pacific Situations in Occupational Health Education and Training — 224
WO Phoon, KS Chia, J Jeyaratnam, D Koh

Original Articles

Community Based Health Care in the Philippine Highlands: the Hanunuo Mangyans of Mindoro — 230
TS Osteria, JY Okamura

Protein Revisited: Is Subclinical Protein Deficiency a Significant Public Health Concern? — 235
S Keller

Measles Immunisation in Thai Children Aged Nine to 14 Months — 241
P Lumbiganon, T Sookpranee, U Tattawasart, S Sukprasert, S Paholpak

Prevention of Human Immunodeficiency Virus Infection among Intravenous Drug Users in New South Wales, Australia: The Needles and Syringes Distribution Programme Through Retail Pharmacies — 245
R Tsai, EH Goh, P Webeck, J Mullins

An Evaluation of a Community Oriented Primary Care Programme for Medical Students — 252
G Smilkstein

A Community Based Approach in Developing Health Policies: Implications for Asia-Pacific Nations — 258
LK Koseki

Historical Milestones

Tropical Macrocytic Anaemia: The Investigations of Lucy Wills in India — 265
GR Wadsworth

Letter to the Editor — 274

Announcements — 275

Author/Subject Index 1988 — 276

Reviewers for Volumes 1 and 2 — 286

Instructions for Authors — 287

We acknowledge gratefully the generous support of UNICEF towards the expense of this issue of the Journal.